Canada needs to buy into cleantech or get left behind; Governments focusing on green stimulus in COVID recovery plans

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Body

Where a pessimist sees risk, an optimist perceives opportunity. Canada's cleantech entrepreneurs are the ultimate optimists, trying to provide the world with solutions for its growing environmental crises.

A growing cadre of Canadian entrepreneurs are developing and commercializing innovative technologies that will create jobs, boost profit for investors and offer a broad array of goods and services to reduce humanity's heavy environmental boot print - as long as we support them.

As the world looks past the devastation of COVID-19, governments everywhere are making economic recovery plans, many focusing on green stimulus. In its recent speech from the throne, the federal government vowed to create one million jobs using climate action as a "cornerstone."

To accomplish this in partnership with businesses, provinces and municipalities, Ottawa needs to buy in to Canadian innovation and unleash this country's green-economy entrepreneurs - to truly make this "the most competitive jurisdiction in the world for clean technology companies."

The success of a domestic cleantech sector would be an unadulterated blessing. It would help us take full advantage of the economic growth opportunities available as we transition to a net-zero-carbon economy. In addition to helping us solve or adapt to climate change, robust implementation of these products would lessen the environmental impact of agricultural activity, waste and water and air pollution.

But for entrepreneurs, cleantech is risky business. While ventures live or die in all industries, cleantech has less assurance than most that even the cleverest innovations will get bought. They face a fiercely competitive landscape where most of their potential customers - other companies - tend to be averse to risk and change, more focused on short-term profit or survival than long-term risks and opportunities, or the planet's needs.

Smarter policy would help. New research by the Innovation Economy Council, to be published Tuesday, has identified a series of measures that would improve the odds.

Governments currently provide generous financing for startups, but that assistance often dries up when companies require large capital investments to establish early commercial operations. More needs to be done to help those firms cross the so-called valley of death between product development and sales.

Direct financing through loans, grants and public investment is just one suite of tools. Governments need to modernize regulations to speed evaluation and approval of new tech. They can offer tax breaks for firms that adopt clean technology, and make better use of pricing tools, such as carbon levies.

And critically, they should institute procurement incentives and policies to support and make room for low-carbon suppliers, an area where we currently lag behind.

According to IEC research on a group of 259 cleantech high-growth startups, total federal procurement between 2009 and 2020 represented just 3.6 per cent of these companies' overall 2019 revenue and just 4.4 per cent of their 2019 exports.

In other words, these high-growth cleantech companies aren't getting early boosts from government sales. They do better outside the Canadian market than they do within it - the opposite of how it works in many other countries, which tend to give local innovators their first sales.

Existing businesses also play an important role as domestic customers for these cleantech ventures, whose goods and services can help incumbents become more efficient while meeting regulatory and other imperatives. However, many corporate executives will first have to overcome their aversion to risk.

There is no one-size-fits-all approach. The sector is as diverse as the Canadian economy, and different measures address the problems of different startups.

Of the 259 fast-growing cleantech companies studied, seven per cent generate clean energy or manage waste. The rest provide cleantech goods and services to businesses and households.

Some are working to commercialize breakthrough technology like fusion reactors, small modular reactors based on nuclear fission or methods to turn carbon dioxide captured from flue stacks into industrial products.

Some are trying to replace fossil fuels with clean energy like solar, wind and hydrogen, targeting the power sector, transportation and buildings.

Some are working to improve energy efficiency - how we produce power, how we transmit it and how we use it in lighting, electronics and appliances. Some are making advances in materials engineering, digital controls or artificial intelligence.

Commercial environmental and cleantech companies employed 317,085 Canadians in 2018, up 30 per cent from 2007, according to Statistics Canada. In a survey by MaRS Discovery District, 369 cleantech startups reported employment of 17,265 people in 2019, an average of 47 employees each.

Canada's exports of cleantech goods and service stood at $7.6-billion in 2016. A federal advisory group concluded in 2018 that cleantech exports could nearly triple by 2025 if the country properly nurtures its startups.

This is critical, because the global market for these goods and services is expected to boom. Canada is one of 72 countries that have committed to achieve net-zero emissions by 2050. Even China has now pledged to do so by 2060.

Canadian cleantech companies show how the economy and environment can go hand in hand.

Through policies and partnerships, we need to free them to produce and sell technology that helps us transition to clean energy while driving economic growth.

If we aren't leaders in this space, other countries will gladly step in to take our place - and we'll be buying their products, rather than our own.

Shawn McCarthy is former global energy correspondent for the Globe and Mail and author of the Innovation Economy Council's new white paper, Clean Slate: How Canada can spur growth by procuring from its own cleantech startups.

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